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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,283	11/02/2001	Charles Clark	2001P19665US	1249

7590

10/21/2003

Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
186 Wood Avenue South
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EXAMINER

KIM, RICHARD H

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/053,283	CLARK ET AL.	
	Examiner	Art Unit	
	Richard Kim	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 6, 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings are required in this application because The drawings filed with this application on 2 November 2001, are objected to as being informal. Notice that Figures 1, 2, 3B, 4, 5, 6, 7, 8 and 9 are hand drawn and the labels on the figures 2, 3A, 3B, 4, 5, 6, 7, 8 and 9 are handwritten. Correction is required in response to this office action. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-9 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes (US 5,754,622) in view of Smith et al. (US 6,282,264 B1).

Referring to claim 1, Hughes discloses a portal imaging device positioning apparatus attachable to a radiation therapy device gantry, comprising a support attachable to the gantry (see Fig. 1, ref. 6); and a portal imaging device attachable to the support (see Fig. 1, ref. 90).

However, the reference does not disclose the device comprising a vertically-adjustable portal imaging device positioner operable in a first mode and a second mode, wherein in the first mode the portal imaging device positioner maintains an imaging panel in position to receive radiation passing through a body maintained in a patient plane, and wherein the second mode portal imaging device positioner maintains the image panel to receive radiation substantially at the patient plane.

Smith et al. disclose a device comprising a vertically adjustable portal imaging device positioner attachable to a support (see Fig. 1, ref. 16, 10, 34) operable in a first mode and a second mode (see col. 8, lines 25-48), wherein in the first mode the portal device positioner maintains an imaging panel in position to receive radiation passing through a body maintained in a patient plane (see Fig. 3, ref. 34), and wherein in the second mode portal imaging device positioner maintains the image panel to receive radiation substantially at the patient plane (see Fig. 4, ref. 34).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a vertically-adjustable portal imaging device positioner operable in a first mode and a second mode, wherein in the first mode the portal imaging device positioner maintains an imaging panel in position to receive radiation passing through a body maintained in a patient plane, and wherein the second mode portal imaging device positioner maintains the image panel to receive radiation substantially at the patient plane since one would be motivated to improve the versatility of the device. According to Smith et al., such a modification provides a “safe, reliable, convenient and effective way to position such systems for a wide variety of imaging protocols...” (see col. 2, lines 50-55).

Further, the reference does not disclose that the support is telescoping.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a telescoping support since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

Referring to claim 5, Hughes discloses a method comprising an imaging panel operably secured to a radiation therapy (see Fig. 1). However, the reference does not disclose adjusting the image panel from a first position in a first mode below a patient plane to a second position in a second mode at a patient plane; the adjusting comprising temporarily securing a vertically positioned imaging panel to a telescoping support; temporarily unsecuring a main drive assembly from the support; adjusting the main drive assembly to the second position; re-securing the main drive assembly; and unsecuring the vertically positioned image panel.

Smith et al. discloses a method comprising adjusting an image panel from a first position in a first mode below a patient plane to a second position in a second mode at a patient plane; (see col. 8, lines 25-48; Fig. 3 and 4, ref. 34); the adjusting comprising temporarily securing a vertically positioned imaging panel to a support; temporarily unsecuring a main drive assembly from the support (see col. 6, lines 1-2); adjusting the main drive assembly to the second position (see Fig. 4); re-securing the main drive assembly to the second position; and unsecuring the vertically positioned image panel (see col. 8 lines 1-7).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the image panel from a first position in a first mode below a patient plane to a second position in a second mode at a patient plane; the adjusting comprising

temporarily securing a vertically positioned imaging panel to a telescoping support; temporarily unsecuring a main drive assembly from the support; adjusting the main drive assembly to the second position; re-securing the main drive assembly; and unsecuring the vertically positioned image panel since one would be motivated to improve the versatility of the device. According to Smith et al., such a modification provides a “safe, reliable, convenient and effective way to position such systems for a wide variety of imaging protocols...” (see col. 2, lines 50-55). Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a telescoping support since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

Referring to claim 13, Hughes discloses a portal imaging device method comprising a support attachable at a first end to a treatment gantry (see Fig. 1, ref. 6). However, the reference does not disclose providing a vertically-adjustable portal imaging device positioner, the portal imaging device positioner operable in a first mode and a second mode, wherein in the first mode the portal imaging device positioner maintains an imaging panel in position to receive radiation through a body maintained in a patient plane, and wherein in the second mode the portal imaging device positioner maintains the imaging panel to receive radiation at the patient plane.

Smith et al. discloses a device comprising a vertically-adjustable portal imaging device positioner, the portal imaging device positioner operable in a first mode and a second mode, wherein in the first mode the portal imaging device positioner maintains an imaging panel in position to receive radiation through a body maintained in a patient plane, and wherein in the

second mode portal imaging device positioner maintains the panel to receive radiation at the patient plane (see Fig. 3 and 4, ref. 34; col. 8, lines 25-48).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a vertically-adjustable portal imaging device positioner, the portal imaging device positioner operable in a first mode and a second mode, wherein in the first mode the portal imaging device positioner maintains an imaging panel in position to receive radiation through a body maintained in a patient plane, and wherein in the second mode portal imaging device positioner maintains the panel to receive radiation at the patient plane since one would be motivated to improve the versatility of the device. According to Smith et al., such a modification provides a “safe, reliable, convenient and effective way to position such systems for a wide variety of imaging protocols...” (see col. 2, lines 50-55).

Further, the reference does not disclose that the support is telescoping.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a telescoping support since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

Referring to claims 2 and 14, Hughes and Smith et al. disclose the device previously recited. However, Hughes does not disclose the device and means including a vertical drive unit adjustably attachable at a mounting cavity to the support; and a mounting unit adjustably attachable to the vertical drive unit, and adapted to deploy the imaging panel from a vertical position to a horizontal position.

Smith et al. disclose a device including a vertical drive unit adjustably attachable at a mounting cavity to the support (see Fig. 1, ref. 17; col. 5, lines 26-41); and a mounting unit assembly adjustably attachable to the vertical drive unit (see Fig. 1, ref. 22, 30 and 32), and adapted to deploy the imaging panel from a vertical position to a horizontal position (see Fig. 1 and 3, ref. 30; col. 5, lines 48-64; col. 3, lines 6-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a vertical drive unit adjustably attachable at a mounting cavity to the support; and a mounting unit adjustably attachable to the vertical drive unit, and adapted to deploy the imaging panel from a vertical position to a horizontal position since one would be motivated to improve the versatility of the device. According to Smith et al., such a modification would enable a variety of x-ray protocols, while necessitating the use of only one detector (see col. 2, lines 58-67).

Referring to claims 3-4, 7-8, 11-12 and 15-16, Hughes and Smith et al. disclose the device previously recited. However, the reference does not disclose that the vertical drive unit is adjustable in the first mode such that a top of the support is substantially adjacent to the top of the mounting cavity, and adjustable in the second mode such that the bottom of the support is substantially adjacent to the bottom of the mounting cavity; wherein the image panel is adapted to be temporarily secured to the support during an adjustment from the first mode to the second mode.

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the top of the support to be substantially adjacent to the top of the mounting cavity, and adjustable in the second mode such that the bottom of the support is

substantially adjacent to the bottom of the mounting cavity; wherein the image panel is adapted to be temporarily secured to the support during an adjustment from the first mode to the second mode in order to provide upper and lower limits to adjusting the image panel thereby, allowing one to precisely position the image panel from one mode to the other.

Referring to claims 9, Smith et al. discloses a portal imaging system comprising a radiation delivery apparatus (see Fig. 1, ref. 46); and means for deploying an imaging panel in a first mode to receive radiation from the apparatus below a patient plane and in a second mode at the patient plane (see col. 8, lines 25-48); the deploying means comprising a vertical drive unit assembly attachable at a mounting cavity to a support (see Fig. 1, ref. 17 and 20); and a mounting unit adjustably attachable to the vertical drive unit, and adapted to deploy the imaging panel from a vertical position to a horizontal position (see Fig. 1, 3, and 4, ref. 22, 30, and 32). However, the reference does not disclose that the support is telescoping.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a telescoping support since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Kim whose telephone number is (703)305-4791. The examiner can normally be reached on 9:00-6:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (703)305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Richard Kim
Examiner
Art Unit 2871

RHK


T. Chandley
Primary Examiner